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10/767,728	01/30/2004	Michael Shenfield	T8467911US	6100

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EXAMINER

HOANG, PHUONG N

ART UNIT	PAPER NUMBER
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2194

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/767,728	Applicant(s) SHENFIELD ET AL.	
	Examiner PHUONG N. HOANG	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 43 are pending for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/06/09 has been entered.

Specification

3. The abstract of the disclosure is objected to because the length of the abstract is more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. **Claim 43 is objected to because of the following informalities:**
5. Claim 43, line 11, "the request content" has improper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 9-20 and 29-41 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9, 12, 15, 17, 18, 19, 29, 32, 35, 37, 38, and 39 are written in Markush group and must be definite and complete as to its membership. However, the use of “the group comprising” in the rejected claims makes “the group” indefinite. See *Ex parte Morrell*, 1000 USPQ 317 (Bd. Pat. App. & Int. 1953)

Claims 10, 11, 13, 14, 16, 20, 30, 31, 33, 34, 36, 40, and 41 depend on the rejected claims and inherently have the same deficiency.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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9. Claims 1 – 7, 12 – 16, 18 - 27, 32 - 36, 38 - 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Slaughter, US patent no. 7,458,082.

10. Slaughter reference was cited in previous office action.

11. As to claim 1, Slaughter teaches a method for providing dynamic interaction between a pair of application programs by a interface module of a terminal (message layer, col. 11 lines 5 – 40, col. 78 lines 57- 30, col. 83 lines 5 – 30, col. 14 lines 37 - 50), the pair of applications including a requestor application desiring access to a target application, the method comprising the steps of:

registering (service providers may register their services, col. 45 lines 35 – 45, col. 47 lines 40 - 50) access information of the target application, the access information including published access information (advertisement, col. 60 lines 20 - 30) made available in a data structure (a space available for retrieving data by message layer, col. 60 lines 20 - 30) for retrieval by the interface module;

receiving an access request by the interface module (message layer, col. 11 lines 5 – 40, col. 13 lines 42 – 65, col. 14 lines 10 – 20, col. 17 lines 15 – 25, col. 18 lines 60 - 65) from the requester application (client application search the space by providing keywords, col. 11 lines 10 – 40, col. 46 lines 45 – 55), the access request including content corresponding to the published access information of the target application (service providers posting services, col. 11 lines 5 – 40);

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obtaining an interface component (bridging mechanism and proxy services, title, abstract, col. 11 lines 5 – 40, col. 78 lines 47 - col. 80, col. 82 lines 10 – 30, col. 83 lines 27 – col. 84, figures 47 – 51 and associated text) by using the request content to search the data structure (proxy is instantiated when client searches using keywords/advertisement on the space, col. 7 lines 38 – 50, col. 8 lines 1 – 15, col. 43 lines 50 – 65, col. 44 lines 1 – 7, col. 46 lines 45 – 55, col. 81 lines 25 – 37, col. 82 lines 10 - 30), the interface component configured for enabling communication between the interface module and the target application in an access format expected by the target application (bridging mechanism may bridge a service within the distributed computing system to external clients and proxy's main job is to route messages between client and service through the space, col. 78 lines 47 – col. 79 lines 30, col. 82 lines 10 - 30); and

employing (inherent) the interface component by the interface module to satisfy the access request of the requestor application for interaction with the target application.

12. **As to claim 2**, Slaughter teaches wherein the interface component includes an application program interface (bridge wrapped with API, col. 11 lines 25 – 40, col. 79 lines 10 – 30) configured for communication in a language incompatible with the interface module (platform independence, col. 13 lines 40 – 55, col. col. 14 lines 6 - 20).

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13. **As to claim 3**, Slaughter teaches wherein the incompatible language is that used by a native runtime environment of the terminal (PDAs, mobile phones, col. 14 lines 36 - 45).

14. **As to claim 4**, Slaughter teaches wherein the interface component includes an application program interface (API) configured for communication in a language compatible with the interface module (bridge wrapped with API, col. 11 lines 25 – 40, col. 79 lines 10 – 30).

15. **As to claim 5**, Slaughter wherein the interface component further includes an access handler configured for providing translation between the interface module and the application program interface (proxies...translate messages, col. 7 lines 50 - 60).

16. **As to claim 6**, Slaughter teaches registering the access handler with the interface module through an extension interface, the published access information of the access handler being added to the data structure (register, col. 41 lines 40 – 50, col. 42 lines 4 – 12, col. 48 lines 1 - 10).

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17. **As to claim 7**, Slaughter teaches accessing the target application through the interface module using the access handler to call a corresponding application program interface (proxies, col. 7 lines 35 - 60).

18. **As to claim 12**, Slaughter teaches assembling the request content to include selected from the group comprising: a local location and a remote location (local and remote, figure 38 and associated text, col. 12 lines 40 - 50).

19. **As to claims 13 - 14**, Slaughter teaches wherein the remote location is on other terminal coupled to said terminal through a network, the other terminal having one of the pair of applications for network interaction with the other of the pair of applications (network layer, col. 12 lines 15 - 50).

20. **As to claim 15**, Slaughter teaches wherein the data structure is selected from the group comprising an application profile table (space, figures 6, 8, 13 and associated text) and an application API descriptor table.

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21. **As to claim 16**, Slaughter teaches wherein the application profile table includes application profiles of a plurality of target applications (space contains all information of service providers, figures 6, 8, 13 and associated text).

22. **As to claim 18**, Slaughter teaches wherein the data structure includes the access information selected from the group comprising; application URI, application version, application description, and a predefined set of matching API construct pairs (URL, col. 12 lines 60 - 67).

23. **As to claims 19 - 20**, Slaughter teaches providing an interface of the platform neutral interface selected from the group comprising: an extension interface, a query and registration interface, and an execution interface (col. 12 lines 40 – 50, col. 14 lines 10 - 15).

24. **As to claim 21**, this is the system claim of claim 1. See rejection for claim 1 above.

25. **As to claims 22 – 27**, see rejection for claims 2 – 7 above.

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26. **As to claims 32 – 34**, see rejection for claims 12 - 14 above.

27. **As to claims 35 – 36**, see rejection for claims 15 – 16 above.

28. **As to claims 38 - 40**, see rejection for claims 18 – 20 above.

29. **As to claim 41**, Slaughter teaches wherein the query and registration interface is configured for publishing the access information (publish messages, col. 19 lines 5 - 15).

30. **As to claim 42**, this is the memory claim of claim 1. See rejection for claim 1 above.

31. **As to claim 43**, this is the method claim of claim 1. See rejection for claim 1 above.

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32. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

33. **Claims 8 – 10, 17, 28 – 30, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaughter, US patent no. 7,458,082 in view of Loo, US pub. no. 2002/0143865.**

34. **As to claim 8**, Slaughter teaches search algorithm with the request content (directory service ...search facility for searching keyword, col. 13 lines 16 - 40).

Slaughter does not explicitly teach employing a search algorithm with the request content for identifying matching ones of the access handlers for use by the interface module.

Loo teaches matching ones of the access handlers (database proxy stores methods and input parameters for proxies, [0133, 0136]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Slaughter and Loo because database proxy would find and match methods and input parameters for all proxies when created to be used to access to the distributed computing system for each client.

35. **As to claims 9 - 10**, Slaughter teaches wherein the language used to express the interface module is selected from the group comprising; a structured definition language based on xml and a script (xml, col. 12 lines 60 - 65).

36. **As to claim 17**, Loo teaches wherein the application API descriptor table includes descriptors selected from the group comprising: API descriptors and extension element descriptors (database proxy stores methods and input parameters for proxies, [0133, 0136]). See motivation for claim 8 above.

37. **As to claims 28 - 30**, see rejection for claims 8 - 10 above.

38. **As to claim 37**, see rejection for claim 17 above.

39. **Claims 11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaughter, US patent no. 7,458, and Loo, US pub. no. 2002/0143865 as applied to claims 9 and 29 above and further in view of Bloch, US pub. no. 2002/0129129.**

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40. Bloch reference was cited in previous office action.

41. **As to claims 11 and 31**, Slaughter and Loo do not explicitly teach wherein the language used to express the script is ECMA script.

Bloch teaches ECMA script (ECMA script, figures 4 and 8 and associated text, especially 0062, 0064, 0086).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Slaughter, Loo and Block's system because ECMA script would provide a free-form script text that must be parsed by a specific script engine compliant with ECMA format as designed for the system.

Response to Arguments

42. Applicant's arguments have been fully considered but they are not persuasive.

43. Applicant argued that Slaughter does not teach the messaging layer receiving an access request from the client including content, for instance via keywords (page 12 paragraph 1).

In response, the examiner mapped more details showing the content to be keywords (proxy is instantiated when client searches advertisements on the space

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using keywords, col. 7 lines 38 – 50, col. 8 lines 1 – 15, col. 43 lines 50 – 65, col. 44 lines 1 – 7, col. 46 lines 45 – 55, col. 81 lines 25 – 37, col. 82 lines 10 - 30).

44. Applicant argued that “Secondly, Slaughter does not disclose “obtaining an interface component by using the request content to search the data structure” (page 12 paragraph 3).

In response, the examiner mapped more details showing obtaining an interface component by using the request content to search the data structure (bridging mechanism and proxy services, title, abstract, col. 11 lines 5 – 40, col. 78 lines 47 - col. 80, col. 82 lines 10 – 30, col. 83 lines 27 – col. 84, figures 47 – 51 and associated text) by using the request content to search the data structure (proxy is instantiated when client searches using keywords/advertisement on the space, col. 7 lines 38 – 50, col. 8 lines 1 – 15, col. 43 lines 50 – 65, col. 44 lines 1 – 7, col. 46 lines 45 – 55, col. 81 lines 25 – 37, col. 82 lines 10 - 30).

Conclusion

45. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONG N. HOANG whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyunh S. Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hyung S. Sough/
Supervisory Patent Examiner, Art Unit 2194
01/18/10

/P. N. H./
Examiner, Art Unit 2194